

### **REMARKS**

In the Final Office Action mailed June 4, 2002, the Examiner rejected claims 1-18 of the present invention. The Examiner stated that Applicants' arguments filed in a response dated March 6, 2002 with respect to claims 1-18 have been considered, but are unpersuasive. The Examiner has again rejected claims 1-7, 9-12 and 14-18 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,208,070 B1 to Sugimoto ("Sugimoto"). The Examiner also rejected claims 8 and 13 under 35 U.S.C. §103(a) as being unpatentable over Sugimoto, as applied to claim 1.

In view of the remarks set forth herein, Applicants respectfully submit that all pending claims, claims 1-18, are in condition for allowance.

#### **A. Rejection Under §102(e)**

Claims 1-7, 9-12 and 14-18 were rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by Sugimoto. The Examiner stated that Sugimoto discloses a ceramic metal halide lamp comprising an envelope, an elongated interior chamber disposed within the envelope having a lamp body (discharge tube 1) located therein (lines 46-48 of column 3), at least one electrode lead (17a of Figure 3) partially housed by the interior chamber (11 of Figure 2) and a single continuous elongated mandrel (16a and 19a) forming a shaft of the electrode lead (lines 23-26 of column 4, and 61-65 of column 4, and line 3 of column 5).

Applicants submit that the presently claimed subject matter is patentably distinguishable from Sugimoto and, further, that the claimed subject matter is not anticipated by Sugimoto. Claim 1 of the presently claimed subject matter specifically calls for a ceramic metal halide lamp that comprises an envelope, an elongated interior chamber disposed within the envelope having a lamp body located therein, at least one electrode lead partially housed by the interior chamber, and a single continuous elongated mandrel forming a shaft of the electrode lead. Furthermore, independent claims 9 and 14 also specifically call for at least one electrode lead having a single continuous elongated mandrel.

The Examiner contends that the single continuous elongated mandrel claimed in the present invention is anticipated by structures 16a and 19a of Fig. 2 of Sugimoto. Applicants submit, however, that Sugimoto is distinguishable

from the presently claimed subject matter since Sugimoto does not contemplate that 16a and 19a are a single continuous mandrel. As stated in Sugimoto at column 4, lines 24-30:

The electrodes 17a and 17b of the present embodiment comprise feed portions 16a and 16b, and electrode rods 19a and 19b...[T]he electrode coils 15a and 15b connect the ends of the feed portions 16a and 16b to the ends of the electrode rods 19a and 19b.

Sugimoto refers to a wire coil as wrapping around the separate structures (i) a "feed portion" (16a) and (ii) the "electrode rod" (19a). Further, as illustrated in the figures of Sugimoto, a single continuous mandrel is not shown; and in fact, Sugimoto clearly shows the use of two separate pieces for the mandrel as is denoted by the line separating 16a and 19a in Figures 2, 3 and 9 (denoted by numbers 26a and 29a). Furthermore, there is no suggestion nor disclosure of using a single continuous mandrel anywhere in Sugimoto. As such, it cannot be said that the mandrel as disclosed in Sugimoto constitutes a single, continuous elongated mandrel as is claimed by the present invention.

The Examiner's reliance on *In re Larson*, 144 USPQ 347 (CCPA 1965) for the proposition that the meaning of "single continuous" is not limited to one piece construction is misplaced for several reasons. First, the Examiner misstates the terminology being interpreted in *Larson*. In that case, the Court held that the term "integral" is not limited to a fabrication of one piece construction. In contrast, the term at issue in the present claims is "single continuous." The terms "integral" and "single continuous" are not synonymous. Accordingly, *Larson* is inapposite to the present discussion. Furthermore, in the present instance, the debate is not over a term in Sugimoto. Moreover, Sugimoto as described above teaches a two piece construction.

Importantly, notwithstanding the meaning of "integral" in *Larson*, the term "single continuous" in the present claims means just that, a one-piece construction extending continuously without breaks or seams. Obviously, Sugimoto does not disclose such a structure. As described above, Sugimoto merely discloses a structure wherein a feed portion 16a and an electrode rod 19a are held together by a coil wrapping around them. As such, at most the two parts are merely abutted

against each other, and certainly don't form a "single continuous" piece as claimed in the present application.

Second, it is well accepted that a patentee may be his own lexicographer. In such situations, "dictionary definitions of ordinary words are rarely dispositive of their meaning in a technical context. A word describing patented technology takes its definition from the context in which it is used by the inventor." *Anderson v. International Engineering & Manufacturing, Inc.*, 48 USPQ2d 1631 (Fed. Cir. 1998). Here, the specification clearly indicates that the term "single continuous" refers to a structure having a single, one-piece construction. For example, the specification states, "Because the mandrel is formed from a single element, the present invention eliminates the weld arrangement." page 3, line 21-23. Further evidence of this can be found on page 6, line 24-32, which states:

The use of a single piece of wire to form the shank or mandrel negates the need to weld two separate pieces of wire together and overcomes the issues...associated with the conventional electrode lead wire assembly. Rather a shaft 50 constructed of one piece of wire rather than two advantageously provides a stronger and more easily manufactured assembly.

Therefore, because Sugimoto does not disclose a "single continuous" elongated mandrel, applicants respectfully submit that Sugimoto cannot anticipate the presently claimed subject matter. Sugimoto does not disclose each and every element that is claimed in the present application. Furthermore, Sugimoto provides no suggestion to modify its disclosed arrangement to meet the elements of the claimed invention, nor has the Examiner cited any prior art that does so. In particular, with respect to claims 1-7, 9-12 and 14-18, Sugimoto does not disclose nor suggest the use of a single continuous elongated mandrel. Rather, Sugimoto teaches that the mandrel constitutes separate cylindrical pieces joined together.

As such, Applicants respectfully request that the Examiner remove all rejections of claims 1-7, 9-12 and 14-18 over Sugimoto under 35 U.S.C. §102(e) and allow the claims as written.

**C. Rejection Under §103(a)**

The Examiner also rejected claims 8 and 13 under 35 U.S.C. §103(a) as being unpatentable over Sugimoto as applied to claim 1. The Examiner argued that Sugimoto met all of the claimed limitations of claims 8 and 13 except for the limitation of the outside diameter of the overwind component being greater than the outside diameter of the electrode tip coil. The Examiner then argued that the limitation of having an outside diameter of the overwind portion greater than the outside diameter of the electrode tip does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied. The Examiner then concluded that such limitation would be considered to be a matter of choice, which a person of ordinary skill in the art would have found obvious.

Applicants submit that claims 8 and 13 are patentable over Sugimoto as applied to claims 1 and 9 as described above. That is, despite the Examiner's assertion, Sugimoto fails to meet all of the claims of 8 and 13 because it does not disclose or suggest the use of a "single continuous" elongated mandrel. Furthermore, claim 8 of the present invention of the present application specifically calls for a ceramic metal halide lamp wherein the electrode lead includes an electrode tip coil disposed at one of the mandrel and an overwind component received over the other end of the mandrel, where the outside diameter of the overwind component is greater than the outside diameter of the electrode tip coil. Claim 13 of the present application specifically calls for a ceramic metal halide lamp with a mandrel that is formed from a single piece of tungsten wire where the outside diameter of the overwind component is greater than the outside diameter of the electrode tip coil.

The Examiner argued that the limitation of having an outside diameter of the overwind portion greater than the outside diameter of the electrode tip coil is not within the scope of the teachings applied. However, Applicants submit that the present application at page 7, lines 21-28 discusses the applicability of the limitation. As stated, the present application states:

It will be appreciated that the invention lends itself to different size wires being wound about the mandrel, particularly where dissimilar materials are used for the electrode tip and the overwind component. For

example, the diameter of the molybdenum wire forming the overwind component is preferably larger than the diameter of the tungsten wire forming the electrode tip.

Applicants submit that the limitation is within the scope of the teachings applied and that the presently claimed subject matter is important when using different sized wires that are being wound about the mandrel, especially where dissimilar materials are used for the electrode tip and the overwind component. The use of an overwind component diameter that is larger than the electrode tip diameter is important to achieve one of the goals of the present invention, providing for a more stable mandrel. As stated in the present application on page 3, at lines 30-34:

Another advantage of the invention resides in the improved concentricity of the electrode tip, which reduces arctube wall corrosion, resulting in increased lamp life and better performance.

As such, it is clear from the specification that having an outside diameter of the overwind portion that is greater than the outside diameter of the electrode tip coil would result in improved concentricity of the electrode tip which, as stated in the application, would reduce arctube wall corrosion and result in increased lamp life and better performance. As such, it cannot be said that the claim limitation does not solve any stated problem or yield any unexpected result.

In the present Final Office Action, the Examiner completely disregards similar arguments made in a previous response. Even assuming for purposes of argument that the claim limitation does not solve any stated problem, the Examiner is not relieved of a responsibility to provide a teaching for that limitation in the prior art. Applicants respectfully request the Examiner demonstrate such a teaching rather than rely on an unsupported allegation of choice. In addition, and despite the Examiner's assertion that Stoffels discloses such an arrangement, Figure 2 of Stoffels is not remotely dispositive of electrode tip and overwind diameters. Therefore, Applicants submit that the presently claimed subject matter of claims 8 and 13 is not obvious in view of Sugimoto and is not a matter of choice which a person of ordinary skill in the art would find obvious.

As such, Applicants respectfully request that the Examiner remove all rejections under 35 U.S.C. §103(a) of claims 8 and 13 and allow the claims as written.


**D. Conclusion**

In view of the above remarks, Applicants respectfully submit that the rejections set forth in the Office Action of May 4, 2002 have been overcome. Accordingly, Applicants submit that claims 1-18 are in condition for allowance. Withdrawal of the rejections and early notification of allowability are earnestly solicited. Should any issues remain, the Examiner is encouraged to contact the undersigned to resolve any such issues.

Respectfully submitted,

FAY, SHARPE, FAGAN,  
MINNICH & MCKEE, LLP

Date: August 5, 2002

  
\_\_\_\_\_  
Scott A. McCollister  
Reg. No. 33,961  
Joseph E. Waters  
Reg. No. 50,427  
1100 Superior Avenue  
Seventh Floor  
Cleveland, Ohio 44114-2518  
(216) 861.5582